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TITLE: FATIGUE CRACK DETECTION METHOD FOR CORNER JOINT

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INVENTOR-INFORMATION:
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ABSTRACT:

PURPOSE: To prevent occurrence of a significant accident by surely distinguish a root blow hole from a fatigue crack generated later.

CONSTITUTION: To a partial **weld penetration corner joint where a flange 11 and a web** 12 are welded, a vertical probe 16 is provided on the web 12 side putting in between a contact medium 15, and a horizontal wave slanting angle sensors 17, 18 having a refraction angle of 45 degree are also provided, The vertical probe 16 is for measuring the weld penetration depth and the slanting angle sensors 17, 17 are for detecting a round fatigue crack 19 having generated from the root blow hole 14. The weld penetration front position of

the joint is detected using the detection signal from the vertical probe 16 and simultaneously, a deeper position than the weld penetration front position is detected using the detection signal from the slanting angle sensors 17, 18. Thus by detecting the string corner reflection wave accompanying the penetration of the fatigue crack, the existence of fatigue crack generation is judged.

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